

# INTERNAL DIE FILTERS WITH MULTIPLE PASSAGEWAYS WHICH ARE FLUIDICALLY IN PARALLEL

## Abstract

An internal filter includes a lower substrate and an upper substrate. Fluid passages are formed by etching grooves into the surface(s) of the upper and/or lower substrates and/or in one or more intermediate layers. The filter pores extending between the fluid passages are formed by etching second grooves that fluidly connect the fluid passages. Two or more sets of the one or two intermediate layers can be implemented to provide additional filter passages and/or pores. Each set can be connected to a separate fluid source and/or a separate microfluidic device. In another internal filter, the inlet and outlet passages and the filter pores are formed on the same upper or lower substrate. The inlet and outlet passages are partially formed in a first step. In a second step, the inlet and outlet passages are completed at the same time that the filter pores are formed.